

CLAIMS

5   What is claimed is:

1.   A multi-purpose valve (10) for supplying secondary air to an exhaust system of an internal combustion engine, said valve including a valve orifice (14) disposed between an  
10   air connection (12) and an outlet (19) to the exhaust system, a power-actuated closing member (15) controlling the valve orifice (14) and a non-return valve (20) arranged downstream of the closing member (15) in the direction of flow of the air, and baffling devices (24, 26, 27) arranged  
15   between the non-return valve (20) and the outlet (19) so as to deflect an exhaust gas flow from the outlet (19) into the valve at least once through at least 90°.

2.   A multi-purpose valve as claimed in claim 1, wherein  
20   the baffling devices include a baffle plate (24) which is arranged transversely to a valve orifice (23) and which separates a pre-chamber (35) facing the non-return valve (20) from a deflection chamber (26) connected to the outlet (19), a passage orifice (30) being arranged, radially off-  
25   set in relation to the valve orifice (23) of the non-return valve (20), in the baffle plate (24).

3.   A multi-purpose valve as claimed in claim 2, wherein the non-return valve (20) possesses a non-return valve plate (21), to which a diaphragm spring (22) limited in its  
30   deflection by a stopper plate (25) forms a closing body, which is fastened at one side of the valve orifice (23) and disposed on the side of the passage orifice (30) where the baffle plate (24) is arranged.

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4. A multi-purpose valve as claimed in claim 1, wherein the outlet (19) is arranged as far as possible from the passage orifice (30) in the direction of flow of the exhaust gas.

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5. A multi-purpose valve as claimed in claim 4, wherein the shortest connection between the passage orifice (30) and the outlet (19) toward the passage orifice (30) is blocked by a baffle wall (27) which extends transversely to the baffle plate (24).

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6. A multi-purpose valve as claimed in claim 1, wherein the housing of the multi-purpose valve (10) is divided in the region of the non-return valve plate (21), parallel to the latter, into a housing upper part (11) and a housing lower part (28), the baffle plate (24), baffle wall (27) and outlet (19) being accommodated in the housing lower part (28).

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7. A multi-purpose valve as claimed in claim 6, wherein the housing lower part (28) has, on the outside, cooling ribs (29).

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